METHOD AND APPARATUS FOR PROVIDING OPTOELECTRONIC COMMUNICATION WITH AN ELECTRONIC DEVICE

ABSTRACT OF THE DISCLOSURE

An optoelectronic assembly for an electronic system includes a transparent substrate having a first surface and an opposite second surface, the transparent substrate being thermally conductive and being metallized on the surface. A support electronic chip set is configured for at least one of providing multiplexing, demultiplexing, coding, decoding and optoelectronic transducer driving and receive functions and is bonded to the second surface of the transparent substrate. A first substrate having a first surface and an opposite second surface, is in communication with the transparent substrate via the metallized second surface and support chip set therebetween. A second substrate is in communication with the second surface of the first substrate and is configured for mounting at least one of data processing, data switching and data storage chips. An optoelectronic transducer is in signal communication with the support electronic chip set; and an optical signaling medium defined with one end having an optical fiber array aligned with the optoelectronic transducer is substantially normal to the first surface of the transparent substrate, wherein an electrical signal from the support electronic chip set is communicated to the optoelectronic transducer via the metallized second surface of the transparent substrate, and wherein the support electronic chip set and the optoelectronic transducer share a common thermal path for cooling.